

ABSTRACT OF THE DISCLOSURE

A method of preventing the scrapping of semiconductor substrates due to improper deposition of thin films in a thin film vaporization system is disclosed. This is accomplished by providing a method of self-calibrating and testing the flow of liquid precursors in the vaporization system prior to the start of the deposition process. The vaporization of the liquid precursor in the deposition chamber and the concomitant pressure change in the chamber are correlated. This correlation is then used as a real time monitoring mechanism for self-calibrating and testing the flow of liquid precursors through the vaporization system. That the pressure change due to vaporization in the chamber is used as the key parameter, the thin film deposition is hence monitored by that parameter which directly predicts the film deposition characteristics. Consequently, each thin film run is assured of a successful run.

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